

ABSTRACT

A shaped charge tubing cutter includes a minimal contact suspension to isolate the cutter explosive from the housing and sub structure. A charge detonation booster main-cavity is located on the juncture of the charge truncation planes. Explosive in the booster main-cavity is detonated by a shielded primer path. Explosive density in the primer path is less than the main-cavity density. A dense, powdered metal SC liner and an abruptly stepped jet window in the tubing cutter housing improve performance. The axial span of the jet window is preferably aligned with the axial span between the liner bases. A testing apparatus and procedure inexpensively verifies downhole performance.